Mobile-USB

Setup Guide

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Why Mobile-USB?

As a mobile notebook user you need modem connectivity to send and receive critical information when you are working at client sites and hotels. The problem is that notebook modems are analog and virtually all office and hotel phone systems are digital. Connectivity in this environment can be impossible. Worse, connecting to a digital line without protection can destroy your modem. The Konexx Mobile-USB provides an analog data port to connect your modem to virtually any office or hotel digital phone system.

Contacting KONEXX
You may contact KONEXX using any of the following methods:

Voice: (858) 622-1400
Toll Free: (800) 275-6354
Fax: (858) 550-7330
Website: www.konexx.com
E-mail: sales@konexx.com
                  support@konexx.com

Address: KONEXX
                  5550 Oberlin Drive
                  San Diego, CA 92121

Pre-Installation

System Requirements – Requires notebook with a USB Port. Any Windows OS (including Windows 95, NT) or Mac OS.

Pre-installation Guidelines - Before installing your MOBILE-USB, observe the following guidelines:

CONNECTION WARNING - Never connect the MOBILE-USB directly to the telephone line or telephone wall outlet. Use the procedures in this User's Guide to avoid damaging your MOBILE-USB.

TELEPHONE LEVEL SWITCH - Set the **Telephone Level** switch on the MOBILE-USB for the telephone you are using (refer to the Level Switch Setting Table on page 10). Switch setting #3 is used on the majority of digital telephone systems.

TELEPHONE SET VOLUME CONTROL - The Telephone Set Volume Control (handset and/or speakerphone volume) may impact your connection speed. KONEXX recommends that the volume control be set in the mid-range for most telephone sets. Do this by lifting the handset to your ear and adjust the volume control to mid-range. Some AT&T/Lucent/Avaya sets may require the volume set at a lower level.

SPEAKERPHONES - If the attached telephone has speakerphone capability, do not use speakerphone mode. Speakerphone mode disconnects the handset jack used by the Modem Konnector to send and receive data.
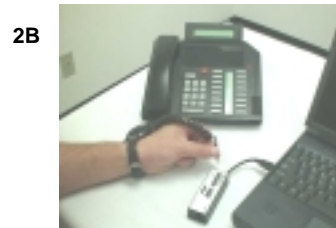
DIALING - Configure your modem for Tone Dialing (Go to Start…Settings…Control Panel…Modems…Dialing Properties…click on TONE DIAL).

Mobile-USB Installation

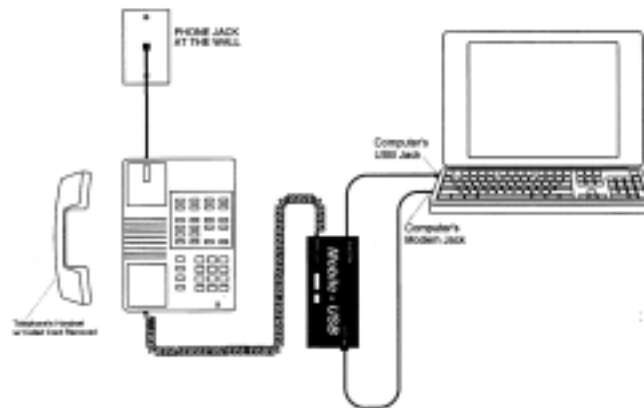**Step 1.** Connect the USB cable on the MOBILE-USB to your computer USB port.

Step 2. Remove the coiled handset cord from the **telephone handset** (2A) and insert it into the MOBILE-USB jack labeled **HANDSET** (2B).

2A   **2B**

Step 3. Connect your PC Card or internal modem cable to the MOBILE-USB jack labeled **MODEM.**

Mobile-USB Installation Diagram

Windows Connection Setup

If you use the MOBILE-USB while traveling we recommend that you modify your modem settings to setup your modem for manual dialing.

Why Manual Dial? Because most digital PBX systems, such as Nortel Meridian, Rolm and others do not accept the analog dialing tones generated by the modem. In order to connect with the host modem you will have to manually dial the host modem's number on the telephone keypad.

Why x3? The x3 command makes the manual dial process easier. Your modem normally requires dial tone in order to dial. By adding "x3" to your modem initialization or setup string you are instructing the modem to dial without requiring dial tone. Once the x3 is entered it remains in the Windows default settings. This will not affect modem use on an analog line.

To enter the "x3" in Windows 95/98/NT
(Windows 2000 see page 7):

Step 1. S*elect* **START** button
Step 2. *Select* **SETTINGS**
Step 3. *Select* **CONTROL PANEL**
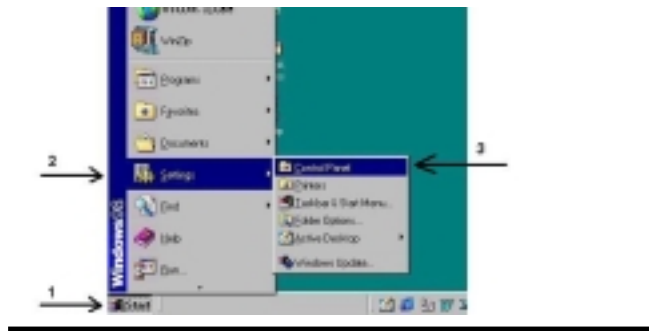
Step 4. *Double click the* **MODEMS** icon

Modems

Step 5. In the General tab, highlight the modem to be used, then
S*elect* **PROPERTIES** (not Dialing Properties)

Continue to next page

Step 6. S*elect* **CONNECTION** TAB
Step 7. *Under Call preferences uncheck the "Wait for dial tone before dialing" box*
Step 8. S*elect* **ADVANCED** in the same window
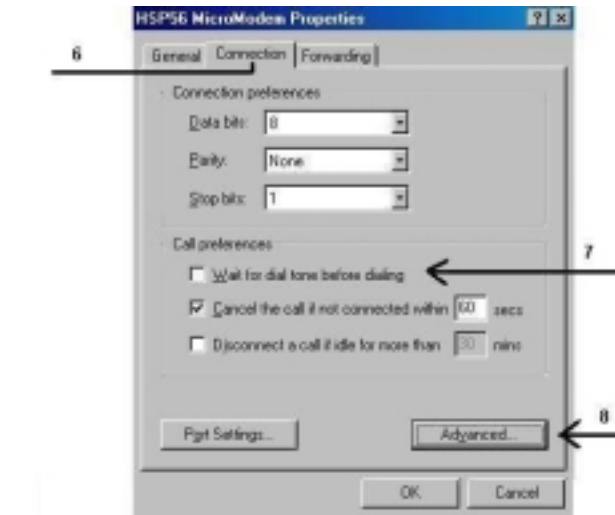
Step 9. In the Extra Settings box type **x3**
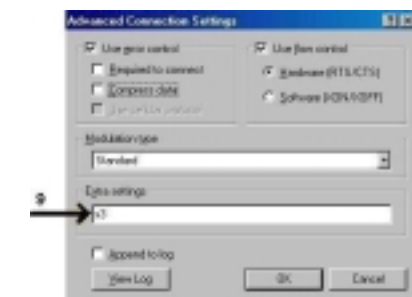
Step 10. *Click* OK to exit Advanced Connection Settings screen
Step 11. *Click* OK to exit Modem Properties screen
Step 12. C*lick* Close to exit Modems Properties screen
Step 13. *Close* Control Panel
Step 14. Reboot your computer and proceed to **Establishing Your Connection (Rebooting your computer is only necessary after first installing x3).**

To enter the "x3" in Windows 2000:

Step 1. *Select* **START** button
Step 2. *Select* **SETTINGS**
Step 3. *Select* **CONTROL PANEL**

Step 4. *Double click* **PHONE AND MODEM OPTIONS** icon

Step 5. *Click* **MODEMS** tab
Step 6. C*lick* **PROPERTIES**

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Step 7. In the General Tab, Uncheck – Wait for dial tone before dialing
Step 8. *Click* the **ADVANCED** tab
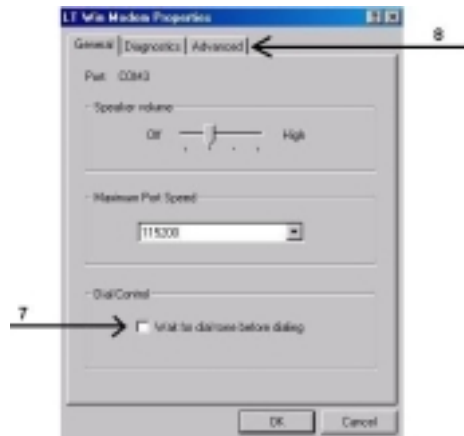
Step 9. In the Extra Initialization commands box type x3
Step 10. Click OK to enter the x3 into the Windows default settings
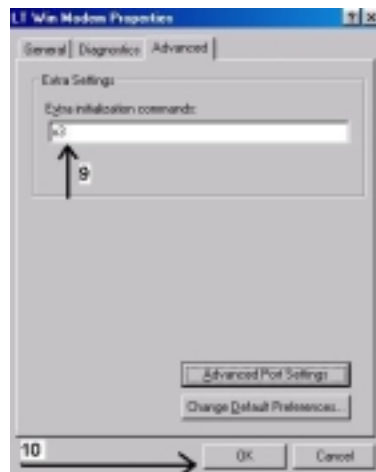
Step 11. *Click* OK to exit Phone and Modem Options screen
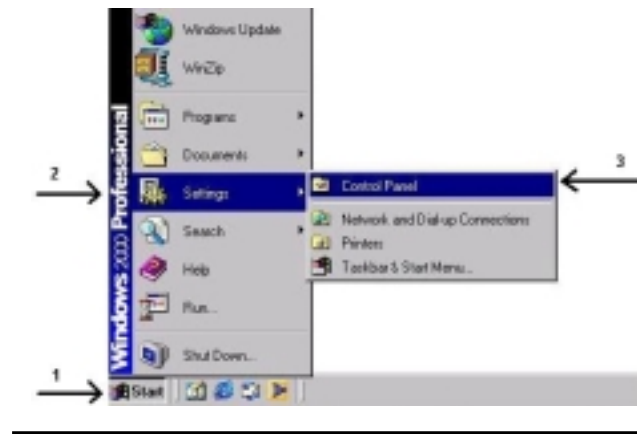**Step 12.** *Close* Control Panel
Step 13. Reboot your computer and proceed to **Establishing Your Connection (Rebooting your computer is only necessary after first installing x3).**

Establishing Your Connection

Step 1. Write down the phone number (including area code if necessary) of the host modem that you wish to call.

NOTE: For proprietary software users see your Network Administrator

Step 2. Set the Level switch on the MOBILE-USB to the proper setting for the telephone system (see table on page 10). If the phone system is not listed, please see page 14 section D.

Step 3. Using your computer, begin the **dial up or connection process** as normal (choose login, sign on, dial, etc.).

Step 4. After the modem completes dialing lift the telephone handset from the cradle and place it on your desktop.

NOTE: If you cannot hear your modem dial - begin the **dial up or connection process** as normal, wait approximately 5-10 seconds, then lift the handset and place it on your desktop.

Step 6. Get an outside line (dial 9 or other prefixes if necessary) and manually dial the number of the modem you wish to connect to on the **keypad of the telephone**.

Step 7. Wait for your modem and host to negotiate the connection. Your connection is now established. ***Do not hang up the telephone handset until you are ready to terminate your connection.***
If you have trouble connecting, please call KONEXX Technical Support at 800-275-6354 or (858) 622-1400 (7:30 – 4:30 PST)

NOTE: When using the MOBILE-USB with a notebook computer, you may notice a "buzz" or "humming" noise when the notebook computer is being powered by its' external power supply. The noise is being generated by the computers' external power supply and is being picked up by the telephone set due to a ground incompatibility. Because this noise effects the modem connection speed we recommend that you power your notebook from its battery when using the Mobile-USB (disconnect the power supply that powers your notebook).

Level Switch Settings Table

The Mobile-USB Level switch adjusts the transmit level of your modem to the telephone set. The Level switch is manually set in one of four settings and is dependent on the telephone set you're using.

Level 3 - Approximately 75% of the electronic or digital PBX telephone systems you will encounter use Setting 3.

Telephone Manufacturer	Telephone Set Model	Switch Setting	Notes
Ameritech	None Specified	1	1a
AT&T	*(See Listings for Avaya)*		
Avaya	Definity	3	---
	Destiny	3	2
	Dimension	2 or 3	2
	Horizon	2	---
	ISDN	3	1a
Avaya	ISDN 7500 series	3	---
	ISDN 8500 series	3	---
	Infinity	3	---
	Merlin	3	---
	Merlin II	3	2
	Merlin Legend	3	7
	Partner	3	---
	Spirit	3	8
	System 25	3	3 & 4
	System 75	3	3 & 4
	System 85	3	3 & 4
Comdial	Digitech	3	---
	Executech	3	---
	Executive	---	2
	Executive II	---	2
	Impact	3	---
	InnTouch	3	8
David Systems	None Specified	3	2
Eagle	None Specified	2	---
Ericsson	MD-110	3	1a
Executone	Encore CX	3	7
	IDS	3	7

Level Switch Settings Table (Cont.)

Telephone Manufacturer	Telephone Set Model	Switch Setting	Notes
	Key Systems	2 or 3	---
	Model 227	---	7 & 1b
	Model 432	---	7 & 1b
Fujitsu	Focus 196	---	5a
	Others	4	---
GAI-tronics	Cohort	3	7
G.E.	none specified	---	1a & 2
G.T.E.	none specified	---	1a & 2
Harris	Lanier	3	---
Hitachi	Digital Model 200	1	2
	HCX-5000	1	2
Intecom	IBX	3	7
Inter-tel	Hitech/1232	1	4
	MPK-2	1	2
	Axxess	3	7
	Premier	1 or 4	2
	Phoenix	1 or 4	2
	Others	1	---
Isoetec	Key Systems	3	---
	Digital PBX	1	1a & 2
ITT/Cortelco	None Specified	2	2
Iwatsu	Omega	2	---
	Omega III	2 or 3	---
	Omega IV	1 or 4	4
Kokyo Co.	Kanda	1	---
Lanier	EKT-220 Electronic Key Telephone	2	---
Lexar	Telex	---	7
	2000 series	---	5b, & 7
Lucent	*(See Listings for Avaya)*		
Macrotel	None Specified	4	1a
Mitel	Superset	2 or 3	7
	SX-200	3	1a & 7
NEC	Dterm II	1	1a
	Dterm III	1	2
	Dterm V	1	---
	Electra	2 or 3	7
	Freedom	1	---
	Mark II	1	---
	Others	1	---
Nitsuko	Onyx	3	1a & 2
Northcom	Premier (NC-1647)	3	---
Northern Telecom	Advantage	3	7
	Focus	2	7

Level Switch Settings Table (Cont.)

Telephone Manufacturer	Telephone Set Model	Switch Setting	Notes
Northern Telecom	Logic One	3	7
	Meridian Business System (CENTREX)	3	7
	Meridian SL-1	3	7
	Meridian SL-100	3	7
	Meridian 1	3	7
	Meridian 100	3	7
	Meridian Norstar	3	---
	Unity	2 or 3	---
	Vantage	3	2
Panasonic	KXT-23?5	3	---
	DBS (old)	2 or 3	---
	DBS (new)	2 or 3	---
	Others	3	---
Phillips	None Specified	1 or 4	2, 5b
Premier	Digital	1 or 4	6
Rolm	Model 120	1, 4 or 3	7
	Model 240	1, 4 or 3	7
	Model 312	1, 4 or 3	7
	Model 400	1, 4 or 3	7
	Model 600	1, 4 or 3	7
	Others	1 or 4	7
Samsung	Prostar	1 or 4	1a
Siemens	Dyad	---	5b, & 7
	Dyad Jr.	---	5b, & 7
	HCM-200	3	1a & 2
	HCM-600	3	1a & 2
	Hicom Digital	1	1a & 2
	OptiSet E	1 or 4	7
	Saturn Digit 260	---	5b
Southwestern Bell	Freedom Phone-old	3	---
	Freedom Phone-new	1 or 4	1a
Shared Resources (SRX)	Vision Phone	2	2
Tadiran	EKT-221	---	1b
	Coral I & II	4	1b & 2
	Emerald & Others	4	1b & 2
Teledex	All	---	9
Telrad	Model 716	4	---
	Model 2464	4	---
	Symphony	4	7
	Digital 717	4	7
	Others	4	2
TIE	BusinessComm	2	2
	Datastar	2	---

Level Switch Settings Table (Cont.)

Telephone Manufacturer	Telephone Set Model	Switch Setting	Notes
TIE	DCX	2	---
	EX-2260	2	---
	Meritore	2	---
	Onyx	3	---
	TC-22	2	---
	Ultracom CX	2	2
	Keyset 8	2	2
Toshiba	DKT-1000 series	1 or 3	1a
	DKT-2000 series	3	1a
	EKT 2000 series	2	2
	EKT-3000 series	2	1a
	EKT-6000 series	3 or 4	---
	Perception	3	7
	Strata (Key Syst)	2	1a & 2
	Strata (Digital)	1 or 3	1a & 2
	103 series	2 or 3	---
Trillium	Panther	2 or 3	1a & 2
	Talkto 616	2	1a & 2
Vodavi	Electronic Key Sys	---	1b
	Starplus Digital	---	7
Walker	Marathon	1 or 4	---
	Poet	1	1a

NOTES:

1. Custom Factory Settings:
   a. The KONEXX product **may require** a custom factory setting for this phone set. If difficulties are encountered, contact Technical Support at 1 800 275-6354.
   b. The KONEXX product **requires** a custom factory setting to work on these phones. Contact KONEXX Technical Support at 1 800 275-6354
2. Insufficient data is available to determine whether the phone system will support autodialing.
3. The KONEXX product will not support autodial on Model 7300 series telephones.
4. You may have to dial an outside line access number, such as a 9, on the phone before autodialing.
5. Handset Wiring Compatibility:
   a. Phone has nonstandard handset wiring and **is not compatible** with the KONEXX product.
   b. Phone has nonstandard handset wiring. The KONEXX product requires the use of a special adapter cable set. Contact Technical Support at 1 800 275-6354**.**
6. When autodialing the user must dial a number on the keypad of the phone after the modem has dialed to maintain the line.
7. These phone systems do not support autodialing.
8. Modem connections limited to 2400 bps by this phone.
9. Teledex telephone is an analog handset and the notebook user may connect directly into the wall jack if the Teledex telephone set does not have a data port.

Operating Tips and Troubleshooting

A. **Telephone Handset -** The handset must be out of its cradle when the modem is in use. Make sure the telephone handset is out of the cradle until you finish your modem session. Hang up your modem and plug the telephone handset cord into the handset to reactivate the handset.

B. **"Hum" or "Buzz" Sound -** When using the MOBILE-USB with a notebook computer, you may notice a "buzz" or "humming" noise when the notebook computer is being powered by its' external power supply. The noise is being generated by the computers' external power supply and is being picked up by the telephone set due to a ground incompatibility.

   Because this noise effects the modem connection speed we recommend that you power your notebook from its battery source when using the Mobile-USB (disconnect the power supply that powers your notebook).

C. **Telephone Set Volume Control -** The Telephone Set Volume Control (handset and or speakerphone volume) may impact your connection speed. KONEXX recommends that the volume control be set in the mid-range for most telephone sets. Do this before installing the Mobile-USB so you can listen through the handset - lift the handset to your ear and adjust the volume control to mid-range. Some AT&T/Lucent/Avaya sets may require the volume set at a lower level.

D. **Level Switch on the MOBILE-USB -** The setting you use depends on the signal level used by the telephone to which the MOBILE-USB is connected. The switch setting sequence from high to low is 2-3-1-4. If the phone system is not listed on the table try switch setting 3 which is the most common. If you set the Level switch too high, you will hear feedback through the modem speaker when the modem is in use. If you hear feedback, set the Level switch to the next lower setting using the sequence 2-3-1-4 until the feedback disappears.

E. **Speakerphones -** If your telephone has a speakerphone mode, do not activate the speakerphone. Speakerphone operation disables the telephone handset jack that the MOBILE-USB uses to transmit and receive data.

F. **Princess and Trimline telephones -** MOBILE-USB will not operate with "Princess" or "Trimline" telephones, which have the keypad in the handset. The electronics with which the MOBILE-USB interacts are not accessible in these telephones.

G. **Tone dialing -** Make sure your modem is configured for Tone (DTMF) dialing. Your MOBILE-USB will not work with pulse (rotary) dialing.   Your modem user guide or operating instructions should describe this procedure.

H. **"No Dial Tone" error message -** The "No Dial Tone" error message is presented when the modem doesn't receive dialtone or recognize what it is receiving as dialtone. Some telephone systems encountered in North America (such as Rolm or Siemens) and most foreign telephone systems do not use the standard dial tone. Your modem software will normally require your modem to detect dial tone and may not recognize non-standard tone as dial tone. The Hayes command **X1** or **X3** will tell your modem to dial without detecting dial tone. This is the same command used for Blind Dialing.

I. **V.90 Connections -** Although the MOBILE-USB is compatible with V.90 modems, the maximum connection speed through the MOBILE-USB is normally 33.6Kbps. Your connection speed will be determined by the phone system's capabilities, your modems capabilities, and the quality of the phone line. When using the MOBILE-USB, your connection is going through a digital phone system, which was not designed for data communications. Your connection speed will probably be slower than you would get on an analog phone line. In fact, V.34bis/V.90 connections at 28.8Kbps, 24Kbps, and 21.6Kbps are common.

J. **Hanging up the modem -** The MOBILE-USB disconnects the "Handset" jack when your modem is in use. After data transactions or when autodialing voice calls, use your communications software to hang up your modem so that the Handset jack is reactivated. The manual that came with your software should describe how to hang up the modem.

K. **System Requirements** – Requires USB Port. Any Windows OS (including Windows 95, NT) or Mac OS

L. **Contacting Technical Support –** 800-275-6354. If Tech Support is not available to take your call, please leave a voice mail message including your name, the telephone number you would like us to call, and a brief description of the problem you're encountering. You can also send questions and comments to our 24-hour fax line at (858) 550-7330 or send e-mail to support@konexx.com.

Please have the following information available when you call so we can better assist you:
KONEXX model (name or number)
Telephone manufacturer, model name or model number
Modem or manufacturer, model name or model number
Computer operating system and communication software you're using

If possible, call us on the telephone which the MOBILE-USB is connected to so that we can test and troubleshoot the problem on that telephone. Our goal is to make you a satisfied customer.

FCC Requirements
Part 68

This device has been granted a registration number by the Federal Communications Commission (FCC), under Part 68 rules and regulations for direct connection to the telephone lines. In order to comply with these FCC rules, the following instructions must be carefully read and applicable portions followed completely. These instructions must be supplied to the consumer.

1. This equipment complies with Part 68 of the FCC rules. A label located on the outside surface of this equipment contains, among other information, the FCC registration number and ringer equivalence number (REN). If requested, this information must be provided to the telephone company.

2. As indicated below the suitable jack (USOC connecting arrangement) for this equipment is shown. If applicable, the facility interface codes (FIC) and service order codes (SOC) are shown.

3. The ringer equivalence number (REN) is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

4. If this equipment causes harm to the telephone network, the telephone company will notify you in advance. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

5. The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications in order to maintain uninterrupted service.

6. If trouble is experienced with this equipment, please contact the service center for repair and/or warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you to remove the equipment from the network until the problem is resolved. User repairs must not be made, and doing so will void the warranty.

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7. This equipment cannot be used on coin service provided by the telephone company. Connection to party line service is subject to state tariffs. (Contact your state public utilities commission for information.) If so required, this device is hearing-aid compatible (EAC).

Part 15 B

FCC WARNING STATEMENT:
NOTE: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or TV reception which can be determined by one of more of the following measures:

Reorient or relocate the receiving antenna.
Increase the separation between the equipment and the receiver.
Connect the equipment into an outlet on a circuit different from that which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.
CAUTION changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada (IC) Requirements

LOAD NUMBER: 0.00

NOTICE: The Industry Canada (IC) label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be
aware that compliance with the above conditions may not prevent degradation of service in some situations.
Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

User's should ensure for their own protection that electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Do **NOT** attempt to make such connections yourself; contact the appropriate electrical inspection authority or electrician.

The Load Number (LNG) assigned to each terminal device denotes the percentage of the total load to be connected to the telephone loop used by the device, without overloading. The termination on a loop may consist of any combination of devices, subject only to the requirement that the total of the Load Numbers of all the devices not exceed 100.

Warranty
2 Year Limited Warranty

KONEXX warrants this product against all defects in material and workmanship, under normal use, for two years from the date of purchase. This limited warranty applies to the original purchaser of this product only. Customer's sole and exclusive remedy and KONEXXs' liability in the event of a defect is expressly limited to correction of the defect by adjustment, repair, replacement or substitution at KONEXXs' option.

This warranty does not cover, and KONEXX is not responsible for damage caused by misuse, neglect, fire, lightning, electrostatic discharge, or modification of this product or damage resulting from the use of this product with hardware not specifically recommended by KONEXX. If a defect should occur, contact KONEXX Technical Support for an RMA number. No product shall be accepted back for warranty repair without an RMA number.

Except as specifically provided herein, there are no other warranties expressed or implied, including but not limited to, any implied warranties of merchantability or fitness for a particular purpose and in no event shall KONEXX be liable for indirect, incidental, consequential or other similar damages arising out of any breach of this warranty or otherwise.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.